DOCUMENT RESUME

ED 213 982 CE 031 832

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TITLE A Guide to Curriculum Development in Career Education.
INSTITUTION Connecticut State Board of Education, Hartford.
PUB DATE 81
NOTE 68p.; One of 12 guides to curriculum development prepared under the direction of the Bureau of Curriculum and Staff Development, Division of Elementary and Secondary Education.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Administrator Guides; *Career Education; *Curriculum Development; Curriculum Guides; Definitions; *Educational Planning; Educational Resources; Elementary Secondary Education; Evaluation Methods; Guidelines; Local Norms; *State Curriculum Guides; State Legislation; State Programs; *State School District Relationship; State Standards; Statewide Planning
IDENTIFIERS Connecticut

ABSTRACT

This guide has been developed to assist educators to write or revise a comprehensive career education curriculum that will meet the needs of local school districts in Connecticut. Following the introductory chapter, chapter 2 provides a brief perspective on the growth and current status of career education in the nation and in Connecticut, as well as providing a working definition of career education. Chapter 3 relates to the curriculum development process, identifying special considerations in the development of a local comprehensive career education curriculum guide. In chapter 4, specific guidelines for developing the teaching/learning process in career education are offered. The guide suggests that a local K-12 curriculum present the content of career education in five sequential stages, and then provides some examples of career education learner outcomes, performance objectives, and samples of teaching strategies for each of the five developmental stages. Chapter 5 addresses the evaluation process in career education, suggesting guidelines for development of evaluation procedures as an integral part of the career education curriculum. Chapter 6 deals with the resources and facilities that may be used in the development and implementation of a local curriculum in career education, while some final notes are offered in chapter 7. Appendixes to the guide contain statewide goals for education, Connecticut laws dealing with career education, a list of regional educational service centers, and a list of career education evaluation resources. A glossary and a bibliography are also provided. (KC)

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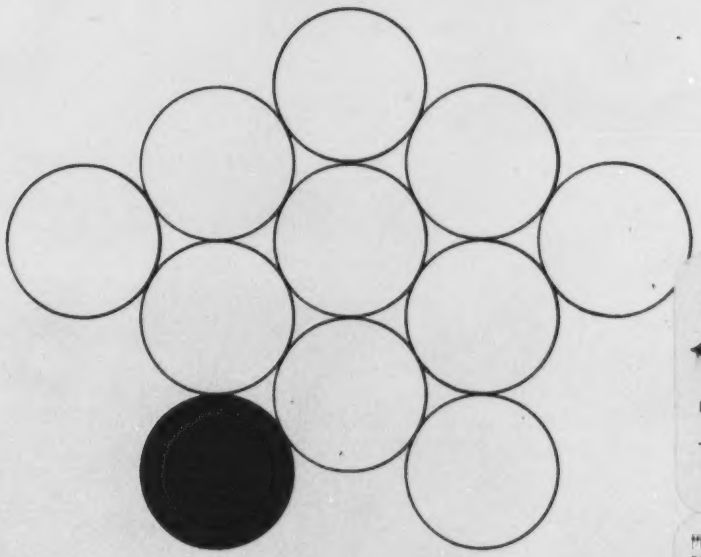
A GUIDE TO CURRICULUM DEVELOPMENT IN

CAREER EDUCATION



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Foreword

Connecticut has a strong commitment to equity and excellence in public education. The *Comprehensive Plan for Elementary and Secondary* Education, *1980-1985*, embodies that commitment. Now this guide to curriculum development, part of a series, is one of the ways in which the State Board of Education is carrying out that commitment.

This concern for equal educational opportunity, dominant in the 1970s and continuing into the 1980s, has been expressed in a number of notable actions:

The State Supreme Court's historic school finance reform decision (*Horton v. Meskill*, 1978) led to Connecticut's educational equity legislation.

Statutes growing out of this concern for educational equity are Sections 10-262c, 10-262e and 10-16b of the Connecticut General Statutes. Sections 10-262c and 10-262e alter public school funding practices, more than doubling state support over a five-year period and setting a required minimum expenditure per pupil in each school district. Section 10-16b specifies educational programs which must be offered in all districts, with the requirement that they be "planned, ongoing and systematic."

In Connecticut's *Comprehensive Plan for Elementary and Secondary Education, 1980-1985*, submitted to the General Assembly in 1980, the State Board of Education pledged to offer local school districts a greater level of technical assistance and more positive leadership in planning, implementing and evaluating school programs.

The guides have been developed to provide tangible assistance and support to local school districts in complying with the legislative mandate. The titles of the guides correspond to the subjects which Section 10-16b requires all school districts to offer their students: the arts; career education; consumer education; health and safety; language arts, including reading, writing, grammar, speaking and spelling; mathematics; physical education; science; social studies, including, but not limited to, citizenship, economics, geography, government and history; and, at least on the secondary level, one or more foreign languages, and vocational education. The goals and objectives set forth in each of the guides relate to

the statewide goals endorsed in the *Comprehensive Plan*, namely, motivation to learn, mastery of the basic skills, acquisition of knowledge, competence in life skills and understanding of society's values.

A Guide to Curriculum Development in Career Education emphasizes the importance of providing all students with opportunities to learn about the career options open to them and of helping them to choose a suitable life work. Career education, infused into all subject areas, is an integral part of daily school activities. In the early years, students begin to develop an awareness of the world of work and its diversity. This awareness grows as students progress through the elementary and middle grades and into high school. Career education, however, does more than prepare students with the knowledge and skills they will need in future jobs. Through firsthand experiences outside the classroom, career education helps students to identify their aptitudes and interests and to make realistic choices of professions and careers which they believe will be personally fulfilling and for which they wish to prepare.

The State Board of Education curriculum guides are not mandated courses of study for any student or any grade level. Each is intended solely to assist local district educators in the development of curricula. Each guide reflects the thinking and experience of an array of experts in its subject area who become, through this document, an important resource to local district educators.

The Connecticut State Board of Education frequently has expressed its conviction that the diversity of the state's public school system is one of its great strengths. Students, schools and communities do not have identical educational needs; imposing a standardized curriculum would impair, not improve, learning opportunities for students.

It is important for local district educators to keep the position of the Board in mind as they use this guide. There is much of value here which can be used to strengthen instructional practices and promote excellence in the curriculum development process. But these ideas can only enhance, not replace, the creativity, talent and commitment of the people in our local school districts who use this guide.

Mark R. Shedd
Commissioner of Education

Acknowledgments

A Guide to Curriculum Development in Career Education has been completed because of the time and talent contributed by many individuals. Appreciation is extended to them for their concerted efforts.

Members of the Advisory Committee provided knowledge and experience which were invaluable in shaping the content and direction of the guide. Committee members include:

Donald Berkowitz, Windham High School
George Cunningham, Portland Public Schools
William DeMatteo, Project LEARN
John Dolan, Milford Public Schools
Lillian Morales Fletcher, Centro de la Comunidad, Inc.
Thomas Furtado, United Technologies Corporation
Margaret Krebs-Carter, Area Cooperative Educational Services
Joseph Pernaselli, Windham Regional Vocational Technical School
Ellen Thompson, Hamden High School
Richard Wilson, State Department of Education

Special acknowledgment is due to Saul Dulberg, major writer of the guide. His expertise and experience in the career education field is reflected in the text. Judith Clark , intern with the State Department of Education, provided valuable assistance in writing and reviewing portions of the guide.

Sincere appreciation is extended also to Richard Ruff, Ohio State University; Donald Thompson, University of Connecticut, and Sidney High, office of Career Education, Washington, DC, whose comments and suggestions bring a national perspective to the guide.

Frederick L. Haddad
Consultant in Career Education

Preview of the Guide 1

A Guide to Curriculum Development in Career Education has been prepared to assist both those who are assigned, and those who volunteer, to write or revise a comprehensive career education curriculum that will meet the needs of the local school district. It has been designed to help each school district meet a requirement in General Statute 10-16b, which states that "In the public schools (of Connecticut) the program of instruction shall include . . . career education." In addition the statute requires that each school district shall be able to appropriately demonstrate that career education is ". . . planned, ongoing, and systematic."

Leadership responsibility for developing or revising a career education curriculum is critical to the success of any program achievement in this area.

Local superintendents are encouraged to assign this responsibility to a curriculum supervisor, an individual who is most knowledgeable about the pedagogical constructs of a good curriculum. This leadership responsibility also may be shared with that staff member who coordinated the development of a local action plan for career education requested by the State Board of Education. In many school districts, this individual has continued on a part-time or full-time basis to coordinate implementation of the action plan. It is this local career education coordinator who probably has the best grasp of the concept of career education and is most knowledgeable about current practices. The coordinator, therefore, should be able to assist in the development of a comprehensive curriculum for career education that will meet the needs of the local school district. Even more important, a career education coordinator can prove invaluable in assisting the local faculty in implementing the career education curriculum.

It is axiomatic that a good curriculum cannot be created in a vacuum. The development of an effective comprehensive career education curriculum calls for extensive participation by teachers, other staff members, and many others. Teachers in all disciplines and at all grade levels, school administrators, school counselors, parents, students, representatives of the local school board and of the community can contribute a great deal through appropriate committee participation.

It is anticipated that this guide will also assist the local superintendent of schools and the local board of education to fulfill their responsibility for the approval of a curriculum that meets local needs, as well as state requirements.

Purposes of the guide

The guide can provide direction for those who are developing a comprehensive local curriculum in career education by identifying the elements of career education and providing a framework for the teaching/learning process.

Specifically, it is anticipated that this guide will assist all who are involved in the curriculum development process to

- express clearly the concept of career education;
- define acceptable career education program goals in terms of relevant learner outcomes;
- promote an understanding of planning, implementation and evaluation techniques for the career education teaching/learning process;
- organize the curriculum into developmental stages utilizing the sequential components of career education;
- identify goals and objectives that are compatible with the growth and maturity of students at each developmental stage of career education;
- provide samples of career education practices at each developmental stage and stimulate the creativity and ingenuity of teachers and others to develop their own teaching methods and career education activities, and
- identify resources, personnel, facilities, and materials considered essential for the development and implementation of a local career education curriculum.

Use of the guide

Ideally this guide can be used as a reference manual for information about the elements of career education and suggestions for a framework within which a comprehensive career education curriculum may be developed. It also may be used as a source book that suggests some goals, objectives, and a few samples of teaching procedures for the development of a local curriculum in career education.

In some school districts it may be used as a handbook, or as a text, for preliminary workshops intended to orient working committees in the concept of career education and to help them identify their roles and functions.

An overview of the content

Chapter 2 provides a brief perspective on the growth and current status of career education in the nation and particularly in Connecticut. A working definition of career education is provided. Wide acceptance of the need for career education in a comprehensive educational program is evident in the current legislative and educational interest in developing career education curricula. A statement of the major goals of career education and their conversion into learner outcomes indicate how career education proposes to meet the pressing need to prepare youth more adequately for work that is meaningful, productive, and self-fulfilling.

Chapter 3 relates to the curriculum development process. It identifies some of the special considerations inherent in the development of a local comprehensive career education curriculum guide. It suggests procedures for determining local career education needs and offers an organizational structure of committees to develop the local curriculum.

Chapter 4 offers specific guidelines for developing the teaching/learning process in career education. It suggests that a local K–12 curriculum present the content of career education in five sequential stages. It then provides some examples of career education learner outcomes, performance objectives and samples of teaching strategies for each of the five developmental stages.

Chapter 5 addresses the evaluation process in career education. It suggests guidelines for development of evaluation procedures as an integral part of the career education curriculum.

Chapter 6 deals with the resources and facilities that may be used advantageously both in the development and implementation of a local curriculum in career education.

Philosophy and Goals of Career Education 2

Career education is a relatively new concept in our schools. It was first brought to the attention of educational administrators in 1971 by Dr. Sidney P. Marland, Jr., then the U.S. Commissioner of Education, at a national conference of school administrators. The concept was later endorsed by the National Council of Chief State School Officers. Currently it is reported that career education activities have been initiated in virtually every school district in the nation.

Perspective on career education

In Connecticut career education has been firmly established through the leadership of the State Board of Education. In the implementation of a legally mandated master plan for vocational and career education, the State Board of Education in

FY 1977 requested every local education agency to submit a policy statement concerning career and vocational education and soon thereafter to submit a plan of action for implementation of the policy statement.

The State Legislature, in its effort to assist local school districts in their planning and implementation of career education, appropriated a total of $1.5 million to be distributed equitably among the school districts of the state during the fiscal years of 1979 and 1980.

A limited amount of funding also was made available through the U.S. Office of Career Education for state leadership activities and for the development of model career education programs. This has stimulated a remarkable amount of local career education activity within the state and a considerable amount of local funding for development and implementation. The current picture of career education in the school districts of Connecticut reflects a general awareness of the concept of career education. The initiation of worthwhile career education activities at different grade levels is encouraging. Considerable assistance has been provided through the establishment of regional career education resource units within each of the six regional educational service centers.

Recently, in an effort to provide ". . . equity in education," the State Legislature adopted General Statute 10-16b and therewith made career education a mandated offering in the local programs of instruction. In addition to mandating the inclusion of career education, this legislation requires the State Board of Education to ". . . make available curriculum materials and such other materials as may assist local and regional boards of education in developing career education" (as well as ten other instructional programs). *A Guide to Curriculum Development in Career Education* is intended to provide material that will assist local school districts develop a career education curriculum that is comprehensive and is ". . . planned, ongoing and systematic."

What is career education?

A definition of career education provided in the Connecticut state plan for career education states:

> Career education is the totality of learning experiences by which each individual becomes aware of and explores self and the world of work; as a result, each individual continually makes and tests decisions; plans an education; prepares for, enters, and makes progress in his or her chosen life's work.

A "totality of learning experiences" emphasizes the fact that career education is a concept rather than a single program. It is a concept made up of many programs which are infused into and become an integral part of all subject areas.

A concept is more difficult to define than a program. There have been many national, state, regional, and local efforts to provide a succinct, comprehensive definition of career education. Most, including the state definition, tend to describe rather than define the concept. However, upon careful analysis of more than 50 such definitions, it can be reasonably concluded that all efforts describe career education in similar terms.

Career education is "education for working," significantly coordinated with "education for learning" and "education for living." It is preparation for work, "work that is meaningful, productive, and self-fulfilling." Career education is further described as a teaching/learning process sequentially organized to provide education for the career development of all students at all levels of learning. It is lifelong learning. It is an essential component of "education for learning" as well as "education for living."

Why teach career education?

> "Life is always insipid to those who have no great work at hand, or no lofty aims to elevate their feelings."

This maxim of Dr. Horace Bushnell, noted Connecticut theologian and writer, expresses the basic philosophy of career education. It is to this end that career education suddenly has become significant in educational circles.

Every local education agency in the state, at the request of the State Board of Education, has submitted a policy statement on career education. An analysis of these policy statements indicate that all of them point in the direction of Dr. Bushnell's aphorism.

Twentieth century society has venerated education. The importance of learning has dominated our successes and our failures. Accordingly, it is understandable that the primary focus of education has been upon "education for learning." However, there has been a growing realization that in our rapidly changing, highly complex, technological society the educational horizon must be extended and should encompass education for learning, education for working, and education for living. Career education has become a significant contribution to extending education toward this broader horizon.

More than a decade ago, Dr. Sidney P. Marland, Jr., motivator of the current career education movement, reported that approximately two and one-half million young men and young women each year move to the next step in their lives, either totally unprepared or, at best, ill prepared to enter the world of work.

The social and economic chaos created by the inability of so many youth to make a successful transition from education to work is alarming. Youth unemployment, welfare costs, widespread crime, delinquency and drug addiction represent only the tip of the iceberg. The mounting moral, ethical and social degeneration in our society and the waste of human talent is incalculable.

Our complex society has altered the traditional means by which adolescents become working adults. In the past youth were surrounded by, and early involved in, work. Our rapidly changing, highly complex, technological society has shifted more responsibility for career selection, planning, preparation, and entry from the parent and home environment to teachers and a school environment.

In its philosophy and in its goals career education addresses these critical issues. Some authorities have cited career education as "a vehicle for the reform of education."

Major goals

The three major goals of career education indicate the direction by which career education attempts to assist youth in meeting their needs in a highly technological, rapidly changing society. The major goals of career education state that as a result of the career education teaching/learning process:

- each student will gain realistic information about self and develop a positive self-concept that reflects a realistic self-appraisal of personal aptitudes, interests, and values;
- each student will gain realistic information about the world of work, information that is meaningful for choosing, planning, and preparing for a career, and
- each student will acquire skills that are essential in the decision-making process.

Learner outcomes

Indicators of the achievement of the major goals of career education can be identified as learner outcomes. The following learner outcomes have been used by the State Department of Education to assess the progress of career education within the state. This progress was surveyed by a statewide project entitled "Connecticut Assessment of Educational Progress." The learner outcomes assessed in this project are described below.

Students are able to:

- seek knowledge of and act upon personal aptitudes, interests, and values;
- demonstrate a realistic attitude toward others and work;
- demonstrate nonstereotypic attitudes toward opportunities and career choices;
- demonstrate interpersonal skills and knowledge of personal responsibilities important in work environments;
- demonstrate effective job-hunting and job-getting skills;
- show awareness of factors that constitute success and satisfaction in a job (i.e., job-keeping skills);
- demonstrate a knowledge of effective skills for job mobility;
- show awareness of sources of information about occupations and job opportunities;
- possess accurate information about a number and variety of occupations, including their characteristics and requirements;
- recognize the relationship of a broad range of learning experiences to career development;
- define terms relevant to the United States economic system, such as unionism and the free enterprise system;
- relate the United States economic system to work;
- demonstrate consumer skills related to work situations;
- recognize the importance of decision-making in lifelong career planning, and relate personal characteristics and information about the world of work to these decisions, and
- demonstrate decision-making skills as they relate to the world of work (i.e., gathering information, weighing alternatives, determining strategies, and evaluating outcomes).

These suggested learner outcomes may be adopted, adapted or revised by the local school district in developing the teaching/learning process in career education.

The Curriculum Development Process 3

This chapter discusses some factors that may require special consideration in the development of a local comprehensive career education curriculum. Other factors that need to be considered are general enough to be applicable to the curriculum development process of all subject areas. These general considerations are included in a companion document entitled *A Guide to Curriculum Development: Purposes, Practices and Procedures.*

Special considerations

The following are some of the special considerations in the development of a local career education curriculum.

Start-up budget. Of the 11 subject areas legislatively mandated for all school districts, most are normally funded as an integral part of the local annual budget. The development of a curriculum in career education now imposes a burden that heretofore was not included in local budgets. In fiscal years 1979 and 1980, a modest amount of incentive grant funding was appropriated under P.A. 78-220 to help local education agencies plan and initiate career education. Now, however, impact of the full implementation, including the development of a curriculum in career education, becomes a local responsibility.

It should be noted in the development of a career education curriculum that the major budget costs are "start-up" costs. These costs may include the development of a curriculum, in-service training of the faculty, and the development and purchasing of career education instructional materials. However, the future operational costs will be greatly diminished. In most school districts the only major operational budget considerations in future years will be for items such as maintaining a career education coordinator, transportation and other expenses involved in the implementation of career exploratory programs for students, and the development and updating of local career information resource centers.

Infusion into existing curricula. An unusual and significant feature to be considered in the process of developing a local career education curriculum is the fact that career education becomes an integral part of all subject areas at all learning levels. It, unlike most disciplines, is not an isolated and separate subject that is taught in the classroom on a regular time schedule. Instead, it is taught in conjunction with other content areas. It is generally infused at an opportune time into the curricula of all basic academic subjects. This implies that the development of a career education curriculum must consider all existing curricula as they are currently taught. In order to have a planned, ongoing and systematic program of instruction for career education, establishing guidelines for the amount of time to be spent on task is important in program planning. The State Department of Education suggests time allotments for infusing career education into subject areas. In the companion curriculum document entitled, *A Guide to Curriculum Development: Purposes, Practices and Procedures*, ranges of instructional time are listed in Chapter 6.

Time Recommendations

Grades	Minutes Per Week	Periods Per Week
1– 3	60 to 90	
4– 6	90 to 225	
7–12		3

Staff development. A major consideration in the career education curriculum development process is the fact that many teachers, administrators, supervisors, and other faculty members have had limited, if any, background study, training, or experience in the career education teaching/learning process. As pointed out in *Career Education: Teaching/Learning Process*, published by the U.S. Office of Education in Washington, DC, a career education curriculum must be predicated upon the willingness of each district to recognize what goals their particular schools should strive to achieve in a career education program. Once a district is committed to developing the program, there must be leadership from school administrators to provide the necessary curriculum development, in-service training and other support services for the school staff. A well-planned program takes time to develop and requires the efforts of all involved.

High expectations from the building principal can assure the school staff that career education is a common goal. It is this reinforcement process on a daily basis that determines the school's success or failure.

When teachers are provided with in-service staff development and consequently become aware of career education concepts, career education can become a part of the classroom curriculum. Its infusion into the many subject areas eventually will be seen as a natural and necessary portion of weekly instruction. The change is more likely to occur when the teacher can call upon other teachers to assist in the continued development of a sound career education program.

Participants. An important factor also to be considered in the career education curriculum development process is the involvement and participation of

appropriate community representatives, curriculum training specialists from teacher training institutions, and particularly the use of the career education expertise available through the career education resource centers located at the six regional educational service centers that serve the school districts of the state (see Appendix C).

Community involvement. Another factor is the expanded utilization of the community as part of the teaching/learning process, and the parents and other community representatives as part of the teaching faculty. Consequently, a public awareness campaign must be initiated as part of the career education curriculum.

Flexible scheduling. Finally, there are a few special considerations inherent in the career education operational design and implementation that must be taken into account in the development of a local curriculum for career education. Some "team-teaching" factors and flexibility in class time schedules may arise as part of the career education teaching/learning process. An expanded use of community sites and personnel as career education resources also may imply some modifications in the traditional classroom teaching/learning process.

Needs to be addressed

The scope and sequence of a local curriculum is best determined by a survey and an assessment of the needs in the local school district. Most school districts completed a career education needs assessment in connection with the development of a local action plan for career and vocational education as requested by the State Board of Education. A current assessment of career education needs for the purpose of developing a new or revised career education curriculum would include a response to two basic questions: What progress has been made in achieving the career education goals designated in the local action plan? What changes should be made in the action plan?

In addition to the development of a local action plan for career education (1977), many school districts participated in the Connecticut Assessment of Educational Progress (CAEP) in Career Education (1978). This survey addressed the statewide career education achievement of students in terms of a limited number of learner outcomes. It is suggested that the findings of this statewide assessment may provide a base for a local career education needs assessment and the development of a local career curriculum. For further information on the CAEP in career education, contact the State Department of Education.

Suggested committee organization

In its current state of development, the content material in career education has not reached the pedagogical sophistication that readily lends itself to an assignment by grade levels. The State Department of Education, in its effort to assist in the development of career education, has suggested the grouping of career education content into broad sequential stages. In order to develop such a curriculum, a committee should be formed of members who can address the teaching/learning process at each of these developmental stages.

Further, the committee should be comprised of members who can address the career education needs of special student populations, such as limited-English speaking students, the gifted and talented, the handicapped, and other special populations represented in the student body and community.

With direction and coordination by the curriculum leadership team and with consultative assistance by career education specialists, the committee can develop goals and objectives for inclusion in a curriculum that ultimately will be implemented in the local school district. Although this guide will provide some samples of career education teaching strategies, it is the teacher representatives on these working committees who probably can best suggest additional teaching strategies that are appropriate for each stage, grade K–12.

It also is suggested that in the organization of the committee one or two members might be assigned the responsibility of searching and identifying exemplary career education models, procedures, and effective career education practices.

Another group within the committee might investigate available national, state, regional, and local career education reference and instructional materials.

An alternative model for committee organization in developing a career education curriculum might involve career education specialists sitting on each of the subject matter curriculum committees in a district to insure that career education objectives, if not in one guide, are included in each of the subject area guides.

4 The Teaching/ Learning Process

Choosing, planning, preparing for, entering and succeeding in work that is meaningful, productive and self-fulfilling is a developmental process. Career education (K–12) approaches this career development in five sequential stages, stages that are consistent and compatible with the growth and maturity of students.

The instructional content of career education, it must be reemphasized, is generally not presented as a separate subject area but rather as an integral part of

each subject discipline. It is infused into the teaching/learning process of every school subject at every grade level, including physical education, music and the arts. This infusion procedure often demonstrates to students the significant relevance of each subject to careers and thereby, according to recent studies, actually enhances the learning of each discipline.

Developmental stages of career education

The following is a brief description of the five stages or phases of career education as they are applicable to ascending levels of learning.

Stage I: Career Awareness (Pre-Kindergarten to 3rd Grade). During this phase, children develop an awareness of themselves and others, as individuals, and gain an appreciation for the dignity of all kinds of work. In school, which is their working environment, they begin to develop helpful attitudes and work habits. They are able to grasp the importance of caring for tools (pencils, paper and play things) and begin to understand the individuality and importance of all members within the group, without biases toward race or sex differences or physical handicaps.

Stage II: Career Orientation (Grades 3 through 6). Based upon the growth and increasing maturity of students, career education initiates learning about career clusters. Currently, the more than 20,000 occupations have been grouped into families or career clusters namely, public service, consumer and homemaking, marketing and distributive, transportation, environment, business and office, marine service, personal services, communication and media, hospitality and recreation, construction, health services, manufacturing, fine arts and the humanities, and agribusiness and natural resources.

Over the four-year span covered by the career orientation stage, students should begin to see the relevance of their basic education skills, and other skills learned in grades 4–6, to one or more of the career clusters.

It is in this career education stage that students gain an understanding of what their parents and other community people do for employment and the contributions to our society by their work.

Stage III: Career Exploration (Grades 7 through 10). Field trips and classroom learning experiences in every school subject introduce the student to the sights, sounds, tastes, smells, and touch of work. The learning experiences may go beyond the school with students in grades 7–10 involved in "shadowing" a worker for one or two days and 11–12th graders involved in internships of one or two days a week, perhaps even a semester, working and learning in an actual business, professional, service, or industrial situation. At the same time, the student begins to find where his/her talents and interests may be, within one- two- or three-career clusters. At this point students are better able to relate the skills being learned in school to their own career ambitions.

Stage IV: Career Preparation (Grade 11 and on). Having become aware of careers, having learned about the world of work through knowledge about the career clusters and through opportunities to explore some of the clusters, and

even some of the occupations within a cluster, most students should be able to make a tentative career choice, or choices, in the terms of one or more, of the career clusters. With this tentative choice, an 11th grade student should begin to plan for and develop some of the fundamental skills essential for that career.

The concentration in the career preparation stage is upon learning particular skills and information required for entry and advancement within a chosen career. For those students who plan to complete their education at a professional level, in a college or university, career education suggests that the preparation stage should concentrate on the acquisition of specific advanced academic skills, such as advanced mathematics, sciences, social studies, etc. For those students who plan to enter employment from high school, the preparation stage of career education would be undertaken through vocational education training, provided either at the high school, or at a vocational technical school.

It is suggested that an essential component of the preparation stage of career education should be the acquisition of "employability skills," i.e., job-getting and job-holding skills.

Stage V: Career Guidance and Placement. This stage of career education is intended to ease the often difficult adjustment period that occurs in the transition from school to work, or to further studies. With an expanded secondary school

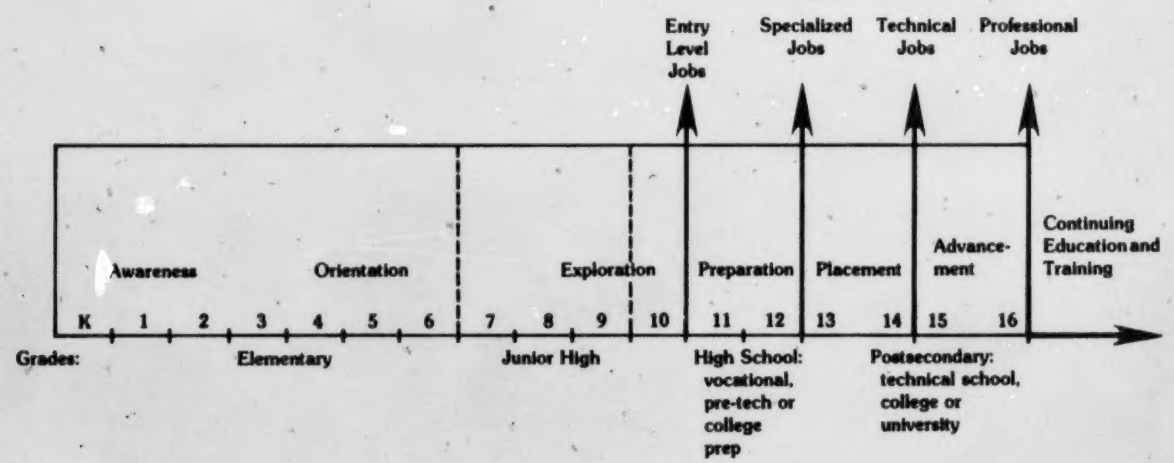

Figure 1
Stages of Career Education

career guidance program that would provide for counseling and ongoing feedback of information that might improve the educational system, the bridge between learning-to-work and working can be greatly strengthened.

The technological advances in the world of work require that opportunities exist for the upgrading and retraining of individuals to cope with these changes and to assure advancement within careers.

This process of the sequential development of career education is graphically illustrated in Figure 1.

It should be noted that, although specific skills and concepts are introduced and emphasized in the sequential stages of career education, each skill and concept is an important and integral part of the following stage. Thus, skills and concepts initiated in the awareness stage are further developed and reinforced in each of the subsequent stages. Orientation is reinforced in the exploration and following stages.

Another way to conceptualize career education is utilization of inverted triangles, as in the USOE comprehensive career education system: school-based model (see Figure 2). As a continuing process, the sequential stages of career education develop and prepare students from kindergarten in the awareness

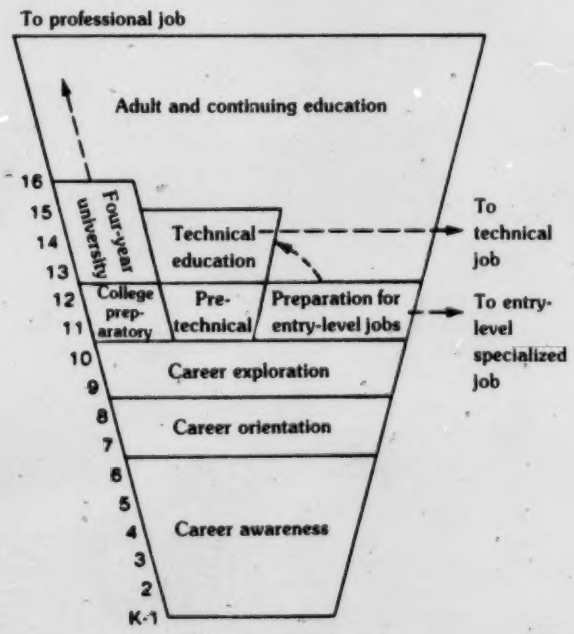

Figure 2
Inverted Triangle Concept of Career Education

stage, adding orientation, exploration, preparation, placement and advancement to their experiences as they continue their education through adulthood.

The inverted triangle concept of career education is based on the USOE comprehensive career education system: school-based model, Source: ERIC Clearinghouse on Vocational and Technical Education, *Career Education Practice*, Information Service No. 65, VT 017 221. Columbus: The Center for Vocational and Technical Education, The Ohio State University, December 1972, p. 19.

Examples of goals and teaching activities

The following pages offer a few examples of career education goals, objectives and some samples of teaching activities. They are intended only as suggestions that will stimulate the creativity and ingenuity of those who are developing a local career education curriculum and subsequently, those who will be implementing the curriculum.

The illustrative materials are grouped by the developmental stages suggested for a career education curriculum. However, no effort has been made to identify the examples by grade level within the particular developmental stage.

As in all other disciplines in education, the acquisition of "basic education skills" is the foundation upon which career education is developed. Each stage of career education is premised upon a continuing development of those skills so essential for all learning.

It is suggested that in the development of local curriculum in career education, each stage of the curriculum might be initiated with a review and reinforcement of the concepts and skills learned in the previous stage.

The subsequent examples of learner outcomes, performance objectives and teaching activities are designed to provide a catalyst for developing a curriculum that infuses career education into all disciplines.

An excellent resource from which to extract specific career education objectives and teaching activities is *Teacher-Developed Infused Curriculum Modules*, published by Partners in Career Education in Arlington, Texas. Many of the goals, objectives and teaching activities for five stages of career education, which appear on pages 15 through 25, were taken directly or adapted from this series.

Career Awareness Stage

Concept: The goals and objectives for the career awareness stage of career education focus initially upon early childhood students in grades K–3. The primary focus is upon the development of appreciations and understandings that will ultimately result in the beginnings of wholesome attitudes toward work and early development of sound work habits.

Learning Outcomes	Performance Objectives	Teaching Activities
Early childhood students will become aware of a self-identity and begin to develop a wholesome, positive self-concept.	Students will be able to describe some individual differences dealing with size, strength, likes and dislikes, abilities and achievements.	To get acquainted with physical attributes and individual differences, children are paired; like, and unlike, in appearance (sex, height, and color). They observe themselves in a mirror and relate how they differ. Students select a partner and trace one another's outline on a large piece of wrapping paper on the floor.
Early childhood students will become aware of school and neighborhood workers and the contributions made by their work to the student's personal welfare.	Students will be able to identify and briefly describe the work of their parents. Students will be able to identify some of the school workers and neighborhood workers, and indicate how their work has contributed to the students' personal well-being.	Students identify and describe what their parents do, what contribution is made and how they were trained for their job. Parents, school workers, and neighborhood workers are invited to discuss their work with children in the classroom.
Early childhood students will begin to develop an understanding and appreciation of the importance of interpersonal relationships in achieving a shared goal.	Students will be able to demonstrate an understanding of concepts such as leadership and followership by acting in an appropriate manner when called "to lead" or "to follow" a group activity. Students will be able to identify kinds of work performed by an individual, and work performed by teams.	Students will participate in group projects, with students rotating the responsibility as the group leader. Group discussions are held on leadership and followership.

Career Awareness Stage (continued)

Learning Outcomes	Performance Objectives	Teaching Activities
Early childhood students will begin to develop disciplined habits.	Students will be able to explain and demonstrate care and maintenance of some school materials and equipment. Students will be able to explain and demonstrate work habits such as attendance, punctuality and responsibility for completion of an assignment.	Participate in an Art-Studio Day: view a demonstration by older students of an art activity; note how materials are cared for, cleaned, storing in the correct place, and in the correct manner. Discuss and demonstrate how to choose, use, and put away materials for a class art show. Participate with other members of the class in cleaning up the classroom and displaying the art work.
Students should understand the difference between someone who produces goods and someone who provides services for others.	Students will be able to match pictures of products and services with workers who produce those products or provide those services, showing one-to-one correspondence.	Students will discuss the difference between products and services. Students cut out or draw pictures of workers and products, displaying pictures on poster board, matching sets with string. Students cut out or draw pictures of workers and services, displaying pictures on poster board, matching sets with string.
Students should understand that wages are what someone is paid for his or her time and effort.	Students will be able to correctly complete word problems involving the addition and subtraction of money and identify the wages of different workers who helped to provide an item as part of its cost.	Students will solve word problems involving cost of item purchases. Class will discuss why a certain price is paid for particular items.
Early childhood students will begin to assess their interests without the common biases and stereotypes.	Students will be able to identify some successful workers in nontraditional careers.	Teacher selects a simple construction project in which all students can participate. A teacher leads discussion of tasks; students participate and upon completion of project, discuss the absence of sex and other stereotypes in the project. A hypothetical handicapped individual is described by teacher. A discussion is held on the nonhandicapped abilities of the individual.

Learning Outcomes	Performance Objectives	Teaching Activities
		Listen to, and interact with a visiting doctor or nurse about the physical and mental needs of people and how people are alike.
Early childhood students will begin to be able to explain why and how they arrived at some simple decisions.	Students will be able to participate in some classroom decisions and then explain why and how they made their decision. Students will be able to identify and explain one or more personal decisions.	Teacher selects a classroom decision-making situation and then leads a discussion on making the decision. Students will flash cards with a smile or a frown, indicating their likes or dislikes of some occupations briefly described by the teacher.

Career Orientation Stage

Concept: The orientation stage introduces information—factual content—about the grouping of occupations into career clusters. Career cluster information is infused and becomes an integral part of the instructional content of all disciplines that are taught in grades 4–6.

For example, during a selected month all teachers would appropriately demonstrate how each discipline is used in the health services cluster. During another period of time, coordinated information about another cluster would be provided by all teachers. This would continue until all career clusters had been introduced.

The major goal of this stage is a demonstration of the relevance of each discipline to the world of work and the importance of all disciplines in choosing and preparing for an eventual career.

Learning Outcomes	Performance Objectives	Teaching Activities
Students will begin to perceive that occupations can be classified into occupational groups or career clusters.	Students will be able to identify and describe at least ten career clusters. Students will be able to identify two or more career clusters in which they have a tentative interest. Students will be able to identify some of the aptitudes and values that are applicable for at least two career clusters.	The art class will develop a large mural divided into spaces for each cluster. Students will draw sketches of people or activities involved in the clusters and/or cut out magazine pictures to mount in the appropriate cluster. Representative speakers from as many clusters as may be feasible will be invited to discuss, in a classroom forum, significant information about the cluster. Parents can help in this activity.

Career Orientation Stage (continued)

Learning Outcomes	Performance Objectives	Teaching Activities
		A game may be played in which the teacher reads about or describes a series of occupations, and students vote upon the cluster in which the occupation should be placed.
Students will be able to relate their basic education skills to each of the career clusters.	Students will be able to identify and describe the use of at least five disciplines in two or more career clusters. Students will be able to identify the level of education required for at least three occupations in each of two career clusters.	A class discussion is developed around the theme "How can what we are studying be used in the career clusters?"
Students will begin to understand the meanings of aptitudes, interests, and values.	Students will be able to identify two or more aptitudes which they consider they possess. Students will be able to describe why they like or dislike two or more career clusters.	Students participate in a hobby show and classroom discussion about the application of hobbies to career clusters. In a language arts class, students talk about "things I like to do." Class then discusses possible career cluster relationships. In a teacher-led discussion, students respond to the question "What are the things I value (cherish)?" Students write a paper on: "Things I do best."
Students will perceive a range of occupations within the career clusters and begin to understand the levels of education, training and experiences that are applicable.	Students will be able to identify at least two occupations in each of the following categories: professional, technical, skilled and unskilled occupations. Several of the students will be able to identify a level of education required for at least three occupations in which they have an interest.	Students take field trip to nearest vocational school. A staff member describes technical skills, trade skills, and semi-skills. A classroom discussion follows. Filmstrips entitled "Livelihoods" published by Time Share Corp., provides career cluster interviews and speakers. All teachers in grade 4–6 focus upon one career cluster per month. A bulletin board on the cluster is developed in each classroom. Use of each basic skill in that cluster is introduced by each teacher.

Learning Outcomes	Performance Objectives	Teaching Activities
Students should realize that changes in technology will affect their work and lifestyle.	Students will be able to identify how the invention of a new type of engine changed people's work and lifestyle.	In a science class, students will discuss the meaning of technology as related to science, naming ways scientists have contributed to technological development in transportation. Students role play a job situation of the past and the present, showing ways in which changes in the job have caused adjustment in lifestyle.
Students should be able to describe worker qualifications for specific jobs which are related to their particular career choice.	Students will be able to identify an occupational characteristic of one of the geographical regions of the United States and identify the qualifications, tools and/or equipment associated with that occupation.	In a social studies class, students will locate various regions of the United States on the map and discuss the work characteristics of each region. Students will identify the qualification tools and equipment associated with the various occupations. Students will participate in playing game "I have ____ training and my tools include ____ and ____ What do I do?"
Students will be able to relate the possible contributions made by career clusters to themselves and to society.	Students will be able to identify at least five contributions to society within each of five or more career clusters. Students will be able to identify at least three personal rewards they might receive within two or more career clusters.	The teacher lists on the chalkboard, "characteristics of dignity" that are elicited from students as part of a social studies course that addresses the contribution of work and workers in our economic society.
Students will become aware of the more than 200 occupations in the health services cluster.	Students will identify health services careers that are concerned with the prevention of illness. Students will identify health services areas that are concerned with the maintenance of health.	Students use the section of the yellow pages to identify physicians and surgeons, and describe different medical specialists.

Career Exploration Stage

Concept: In the exploratory stage of career education, the emphasis is upon the direct and vicarious activities that provide "hands-on" and/or observational experiences. This stage continues the learning experiences initiated in the earlier awareness and orientation stages.

It is suggested that in grades 7 and 8, students be provided exploratory learning experiences in career clusters. In grades 9 and 10, these exploratory experiences focus upon in-depth exploration of one or more occupations within each of the clusters. The major goal sought in this exploratory stage is to enable students to choose, on a tentative basis, a career for which they will be able to develop a plan of education and proceed into the preparation stage of career education.

Learning Outcomes	Performance Objectives	Teaching Activities
Students will be able to locate sources and to interpret available information about occupations and careers.	By the beginning of grade 11, students will have identified and used at least two sources of occupational and career information. Students will have had a career guidance interview with either a guidance staff member, or with one or more workers in the occupations in which the student is interested.	A computer guidance information retrieval system is installed for at least one month, during which time a parents' night is held. The retrieval system is operated and explained. One or more Boy Scouts of America "Explorer's Post" (co-educational) is established with appropriate leadership and program. Teachers and the Educational/ Work Advisory Council will identify and catalog potential speakers and exploratory sites.
Students will have a preliminary self-appraisal of their attitudes, interest, and values.	Students have taken one or more career aptitude tests, interest inventories, and values clarification instruments. Students will initiate a realistic profile of their aptitudes, interests, and values.	The Ohio State University, National Research Center for Vocational Education Career Planning Support System, is initiated and implemented at the high school level. The "Self-Directed Search" aptitude test is provided through the Guidance Department for all interested students.
Students will have made a tentative career choice based upon direct hands-on or vicarious exploratory experiences.	Students will have learned about the career opportunities available within each high school discipline. Students will understand the application of each discipline to one or more careers.	Shadowing or an observation experience is provided for 9th or 10th grade students. The development of an Experience-Based Career Education (EBCE) program like the model used by the Portland, (CT) School System, is one option.

Learning Outcomes	Performance Objectives	Teaching Activities
		Utilization of the Merit Badge Career Interview program of the Boy Scouts of America can be effective.
Students should be able to determine how much it will cost them to work.	Students will be able to determine how much it will cost them to work in a job chosen from among those advertised in a newspaper.	Students choose a job from the classified section of a newspaper, and identify reasons for the selection. Students prepare list of possible expenses incurred by working. Students use the classified ads to identify housing based on their means and determine weekly costs of living and operating the home. Students choose their mode of transportation and determine the cost. Students take a field trip to a local grocery store to compare prices, plan their needs for a week and calculate the costs.
Students should realize that there are many factors that affect the supply of items or services for sale, such as: labor and material, resources, prices of related goods, and technology.	Students will be able to describe how resources of an area determine various job opportunities that are available.	Students select an area of the world and research how its resources affect its occupational outlook. Students compare their own region's resources and occupations with selected country.
Students should be able to understand that technology has created changes in jobs that require the labor force to retrain.	Students will be able to relate how social and technological changes have led to the adoption of the metric system in many career fields in the United States.	Students will measure and record the mass of objects, using both the metric measure and the English measure as the standards. Students will discuss rationale for the adoption by the United States of the metric system. Students will discuss ways metric measure affects jobs today and in the future.

Career Exploration Stage (continued)

Learning Outcomes	Performance Objectives	Teaching Activities
Students should understand the necessity of seeking out knowledge about the supply of and demand for occupations before making a career choice.	Students will be able to identify several occupations which were in demand during the colonial period as well as currently.	Students list colonial occupations and, using the *Occupational Outlook Handbook*, identify which colonial occupations are currently in demand. Students will discuss colonial attitudes relating to work that are important today.
As a result of exploratory experiences, students will be able to identify a career for which they will develop a plan of preparation and take the necessary steps for participation in a program of training.	Students will be able to identify the academic program required for a chosen career. Students will be able to identify one or more sources for such training.	"The Career Games," a school assembly program, can be initiated to assist students in identifying their career plans. A language arts program on reading and using technical literature can be devoted to a discussion of the occupational titles.
Students will understand common payroll deductions.	In a series of hypothetical wage brackets, students can convert hourly wages into weekly and monthly salaries and into annual income. Wage deductions should also be addressed.	Teacher will introduce and describe time cards, pay envelopes, and W-2 income tax withholding forms.

Career Preparation Stage

Concept: For most students the preparation stage of career education will begin in grade 11. For those students who plan to enter employment directly from high school, vocational training may be started earlier. For some students, preparation for entry into employment may require vocational training in postsecondary institutions, a university, college, proprietary school, or apprenticeship program. For many students the preparation stage will be completed at the end of the 12th grade.

An additional guide, *A Guide to Curriculum Development in Vocational Education*, will be forwarded to each school district. This guide will address the preparation stage of career education that is available in the local high school. However, it is important to point out to those who are developing a curriculum in career education that competence in academic areas specific for vocational training extending beyond the high school, e.g., the study of higher mathematics, as academic preparation for engineering and other occupations, is an important element of the preparation stage of career education.

The following is a suggested guide for developing that portion of the preparation stage in career education that is applicable for all vocational training. However, it is a component of career education that is frequently overlooked, particularly in traditional academic-oriented high schools.

Learning Outcomes	Performance Objectives	Teaching Activities
Students will understand the academic requirements for highly skilled trades, technical level skills, and training for the professions, and they will undertake necessary vocational academic training in the preparation stage of career education.	Students will identify and enroll in academic courses required for college admission and/or job entry positions.	Guidance information concerning career requirements and sources and nature of training programs is provided to individual students, often accompanied by parent(s).
Students will acquire competence in the employability skills of "job getting" and "job holding."	All students will be able to demonstrate competency in completing a variety of job applications.	Widely varying job application forms are reproduced for use in a language arts class.
	All students will be able to prepare a basic resume.	The development of an effective resume is included in the language arts curriculum.
	All students will be able to explain the meaning of the terms: wages, salary, deduction, fringe benefit, etc.	A series of lessons is provided on the basic psychology of interpersonal relations.
		A lesson is provided on wages, salaries, deductions, and fringe benefits.
		Included in part of the social studies curriculum is a thorough explanation of the unions and their contributions to society.
		Included also is a thorough explanation of the free enterprise system and its contributions to a free society.
Students will have the basic competencies for an employment interview.	Students will be able to identify and demonstrate interview decorum.	Mock interviews are developed with students assuming all roles from the receptionist to the job supervisor.
	Students will be able to respond to pertinent questions concerning personal qualifications.	
Students will be able to give examples of ways in which they might present themselves in order to improve their chances for success on the job.	Students will be able to cite factors which could affect chances for a promotion and define each factor in their own terms.	Students will interview an employer to identify the company's promotion policies and report to the class.

Career Preparation Stage (continued)

Learning Outcomes	Performance Objectives	Teaching Activities
		Guest speaker will discuss variables which relate to worker promotion. Students (as assigned by the instructor) will role play employer or employees in situations involving a promotion.
Students will be able to identify their responsibilities and the responsibilities of fellow workers while performing a task or job.	Students will be able to discuss job teamwork and its relation to overall production and explain various ways of building good personal relationships with other employees.	Students will participate in discussion of getting along with others, and role play reactions and opinions about working with others.

Career Guidance and Placement Stage

Concept: This is the stage of transition from school to entry employment. It is suggested that an important goal of career education is to provide some critical supportive guidance services in this area. The curriculum involvement in this stage of career education is somewhat different than in the previous stages. This development stage identifies outcomes, objectives and activities for guidance and teaching staff members, as well as for students.

Learning Outcomes	Performance	Teaching Activities
Students will utilize counseling and guidance services to assure that upon leaving school they will be placed in a logical and compatible situation that encourages their maximum development.	Students will have had at least one career guidance counseling session. Students will have participated in at least three group career guidance sessions.	Students are shown how to use a career resource center which is part of the school library media center or the guidance office. Community volunteers assist in the development and operation of local career resource centers.
	Students will use a community directory of sources for career information, training, and placement which will be developed and continually updated.	A local or regional Community Education/Work Council will assist in developing a community career information directory.
	As the result of career guidance all students will develop a realistic self-appraisal and be able to make a compatible transition to the next stage of development.	Members of the guidance staff will assist teachers in their performance of their career education responsibilities by providing current career guidance information for use in the classroom.

Learning Outcomes	Performance Objectives	Teaching Activities
	School districts will have at least one adequately developed and serviced Career Resource Center.	Students, parents and teachers are given the opportunity to use computer terminals and/or a guidance information service system as part of the career guidance information program. State Department of Education guidance consultants and educational counselors help organize and implement an ongoing in-service training program for school staff members.
	A counseling center will be established and all persons leaving school or graduating will be advised of the available services. A systematic program will be established for contacting every graduate or leaver concerning his/her adjustment.	The school district or regional adult education program will assist in the development and implementation of a counseling center for school graduates and leavers.

Evaluation of Career Education 5

Evaluation has been defined as the process of systematically identifying, collecting, analyzing, reporting, and utilizing data and information about educational programs. Its primary purpose in career education is to permit planners, teachers, administrators, and other participants to measure systematically and assess program progress and to determine what changes or adjustments may be required to achieve identified program goals and objectives.

Planning evaluation

Evaluation planning should begin early, essentially while the goals and objectives, and teaching strategies are being formulated for inclusion in the career education curriculum. The care and precision used in developing and describing these components of the curriculum will determine, to a great extent, the degree of accuracy to be expected when measuring program achievements.

It is suggested that to the fullest degree possible, the design, development and use of the evaluation procedures be performed by those who are developing the local career education curriculum. The close relationship that should exist among the statement of intended goals, objectives and teaching strategies, evaluative criteria, and standards of performance, cannot be overemphasized. The more often one is willing to refine goal, objective and teaching strategy statements, the greater precision one can anticipate when measuring the progress made in achieving the intended purpose of those statements.

In planning the evaluation procedure as an integral part of the local career education curriculum, it is recommended that both the formative and summative methods be included. The formative method, sometimes referred to as the process evaluation, provides for periodic program checkpoints assessing student progress. The ongoing feedback of information during a program allows for adjustments and revisions to facilitate progress. The summative evaluation is developed at the close of the project or activity and assesses how well the program has worked.

Guidelines for evaluation procedures

An excellent handbook devoted exclusively to evaluation of career education is *Improving the Accountability of Career Education Evaluation Guidelines and Checklists*, published by the Center for Vocational Education at The Ohio State University. It is from this source that much of the following material has been excerpted and paraphrased.

- In the curriculum development process it is suggested that in planning the evaluation of the goals, objectives, and teaching strategies, a determination be made as to *who* needs *what information*, *when*, and in *what format*.
- It should be determined if the evaluation data is needed to monitor and/or to improve the program as it progresses.
- At the end of a program, upon reaching a predetermined goal or objective, an evaluation should be made to determine the sum worth of that program.
- The information obtained by the evaluation should be of value to the audience(s) for which the data has been procured.
- The data and information should indicate how well the program meets national and state standards of excellence for career education programs.
- It is suggested that time lines be plotted for conducting evaluations; spaced to allow for critical decisions.
- Cost effectiveness data should be considered in planning the evaluation procedures for some programs.
- The evaluation should provide information verifying the accuracy of its findings.

- Information and reports of evaluation findings should be provided for education decision makers and for the general public.
- It is recommended that those who are involved in the curriculum development process also be involved in planning its evaluation.
- The evaluation should answer questions about changes in students' knowledge, skills, attitudes and behaviors resulting from a career education experience. The evaluative data and information should reflect progress in achievement of the learner outcomes intended for the program.
- The evaluation should include information about unintended or spin-off effects.
- In planning evaluations it is important to consider a variety of potential tasks and/or activities for the procurement of the desired information.

Evaluation procedures and instruments can be broadly divided into two categories: those which seek objective information, such as facts, statistics, and direct measurement of knowledge, skills or behaviors, and those which seek subjective information, such as perceptions of needs, opinions, attitudes, self-assessments of interests or abilities and ratings of program quality.

These procedures and instruments must be carefully reviewed to be sure they are providing the right kind of information for those who need it and providing this information in the right format at the appropriate time.

Checklist for evaluation criteria

The following is a checklist of criteria that might be used effectively for a program or any of its activities.

Scope. Does the range of information to be provided include all significant aspects of the program being evaluated?

Relevance. Does the information to be provided serve the information needs of the intended audiences?

Flexibility. Does the evaluation plan allow for new information needs to be met as they arise?

Feasibility. Are the resources adequate to carry out the evaluation as planned?

Reliability. Will the information be collected in such a way that if someone repeated the study he/she would obtain similar findings?

Objectivity. Have provisions been made to help control for bias in data collection and processing?

Representativeness. Will the information collected accurately and fairly portray the program?

Timeliness. Will the information be provided in time to be of use to the audiences for the evaluation?

Pervasiveness. Is information to be provided to all who need it?

Ethical considerations. Will the evaluation guarantee confidentiality and protection for those who provide information?

Protocol. Are appropriate protocol steps planned for contacting people in the appropriate sequence and following existing policies and procedures?

Security. Have provisions been made to maintain the security of the evaluation data?

Credibility. Does the design of the evaluation encourage trust in the results by relevant audiences?

Cost effectiveness. Compared to its potential payoff, will the evaluation be carried out at a reasonable cost?

For a list of available publications containing information on evaluating career education programs, see Appendix D.

6 Resources and Facilities For Career Education

An effective career education program is more likely to occur when its development is aided by sound resource material and personnel. These resources are available in quantity and quality in the regional educational service centers, community-based organizations, and national education agencies. There is also an abundance of commercially produced material which can be purchased by the school system.

Regional educational service centers (RESCs)

The state now has six RESCs that are well established and currently serve every school district in the state. Each of these centers has a career education resource unit which is available for the constituent school districts within the region.

Over the past five years these career education resource units have been partially supported by funds made available through the State Department of Education. Additional support has been provided by membership and service fees paid by the local school districts.

Knowledgeable career education specialists in these regional career education resource units have conducted several hundred local and regional career education training workshops.

In addition to these qualified career education specialists, the career education resource units have been able to identify a wealth of resource materials. Each center now has a growing library of career education text and reference literature. Most centers are able to provide a limited amount of print and nonprint materials on a short-term loan basis. They also provide information about new literature and program materials through periodic newsletters.

Recently some of the RESCs have assisted in the development of local and regional Community Education/Work Advisory Councils and thereby have greatly assisted in the expansion of essential community participation in career education.

It is suggested that each school district contact its RESCs for more complete information which will assist in the development of a local career education curriculum, as well as in its future implementation. For addresses of the six service centers, see Appendix C.

The community as a career education resource

A unique feature of the development of career education in the local school districts has been the expanded use of the community as a career education resource. The community, including parents, have provided important contributions to the development of career education in a variety of ways. Parents, business, industry, and professional members of the community are a valuable resource based upon their specialized career knowledge and expertise. In many communities this group has been the nucleus of a Community Education/Work Advisory Council. Participation by the councils has extended the range of public awareness in career education. They have provided realistic and sound advice for the development of career education policies. In some communities the Community Education/Work Advisory Councils have been able to develop a limited amount of funding for career education programs.

Some of the potential that might be realized from the participation of community representatives in career education was demonstrated in a recent statewide task force. This Connecticut Career Education Task Force was influential in the development of significant career education legislation. The Task Force sponsored "The Governor's Career Education Leadership Conference" held in September 1979. Individual members were able to assist some of the school districts in developing the local action plan for career education that had been requested by the State Board of Education. Currently, some members are assisting in the development of local and regional Community Education/Work Advisory Councils. Many Community Education/Work Advisory Councils have provided local sites for student field trips, shadowing programs, and exploratory internships.

A growing resource for the development of career education is participation by an increasing number of community-based organizations (CBOs). There is a current thrust to identify and use more than a dozen CBOs as resources for the development and implementation of career education including organizations such as the Boy Scouts, Girl Scouts, 4-H Clubs, local Chambers of Commerce, Junior Achievement, Rotary International, National Alliance of Business and others. This resource has been stimulated by directives from the national offices of the many community-based organizations that have endorsed the concept of career education.

It is suggested that the interest and participation of the community in career education can be an important resource for the development of a local career education curriculum, particularly for implementation of the curriculum.

Communication and joint efforts between the school and the community can provide students many career education opportunities. *Career Education: Teaching/Learning Process*, published by the U.S. Office of Education (USOE), Washington, DC, offers suggestions for community involvement. To strengthen the career education program, members of the community should be encouraged to:

- serve on advisory councils
- assist in staff training
- speak to student groups
- sponsor field trips
- offer internships and shadowing
- advise as to relevance of curriculum
- provide materials about the world of work
- promote public awareness of career education
- provide work experience sites
- share projections of future job needs

The types of career education activities that develop in a particular locale depend on the needs of the students. Parents can be an invaluable resource. In addition to providing instruction and role models, parents can also contribute to the students' development through participation in numerous community activities. Among those enumerated in the USOE booklet mentioned above are the following:

- serve as volunteers
- assist in school resource surveys
- accompany students on field trips
- demonstrate hobbies
- assist with school newsletters
- participate in P.T.A. programs
- encourage involvement by retired persons
- serve on advisory committees

Professional associations

The national and state professional associations of virtually every subject area taught in our schools have endorsed the concept of career education and have

developed reference and instructional materials for teachers. By and large, these materials have assisted teachers at all grade levels in the art of integrating career education into the existing curricula. Most significantly they have helped teachers to identify for their students the career implications of their subject content. They also have identified the relevance of many academic skills in the pursuit of careers.

It is recommended that the leadership and members of the career education curriculum committees fully utilize the resources of these professional associations. The state consultants for many of the disciplines taught in the school district are available as resources to assist in the development of a curriculum in career education. They can also indicate the current professional leadership personnel available within each subject area. A list of state consultants is provided in the current *Connecticut Education Directory* available through the State Department of Education.

The state consultant identified as the state coordinator of career education is responsible for doing just what the title indicates—coordinating career education activities within the state. The office acts as a referral resource. Inquiries concerning career education policies, programs, models, activities, and special resources are referred by this office to the appropriate national, state, regional, or local agency. *A Guide to Curriculum Development in Career Education* has been developed under the management of the state coordinator of career education.

National professional associations supply pertinent information regarding career education at all levels. Materials published include pamphlets, newsletters and other resources. Inquiries should be directed to:

National Association for Career Education
Glassboro State College
Glassboro, NJ 08028

National Association for
Industry-Education Cooperation
235 Hendricks Boulevard
Buffalo, NY 14226

American Personnel and Guidance Association
2 Skyline Place, Suite 400
5203 Leesburg Pike
Falls Church, VA 22041

National education agencies

The U.S. Office of Education has established a special agency to provide information and leadership in career education. It is called the U.S. Office of Career Education. This office has extensively funded model career education programs throughout the nation. Information about these programs as well as a series of career education monographs have been published and made available through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The public inquiry telephone number is (202) 783-3238.

The National Institute for Education (NIE) has done considerable research in the area of career education. It established four experimental career education models and has published extensive materials on these models, as well as on other career education research projects. NIE is located at Brown Building, 1200 19th Street NW, Washington, DC 20208.

One of the most extensive national resources for information and materials on career education is the National Center for Research in Vocational Education located at Ohio State University in Columbus, Ohio. The toll-free telephone number is 1-800-848-4815. Despite its limiting title which seems to indicate only research in vocational education, the Center has pioneered the development of extensive practical career education materials. Its range of materials reaches from managing and evaluating career education to innovative career guidance practices in the high school. The Center is the location of the ERIC Clearinghouse on Adult, Career and Vocational Education. ERIC is a computerized retrieval system that provides succinct digests of an enormous number of career education publications.

Commercial print and nonprint materials

The amount of career education instructional and reference materials that has been developed and published commercially over the past few years is overwhelming. The quality of these materials may vary considerably. It may not be feasible for a local school district to locate all of the published material that can be effectively used as career education resources. It is suggested that the most valuable assistance in this matter can be procured through cooperative activities carried on through the career education resource centers of the RESCs. They are constantly reviewing and evaluating current materials in career education.

Career Education Publications

Newsletters and other periodicals provide readers with the latest developments in career education, workshops offered nationwide, and current bibliographies. Subscriptions are available directly from the individual publishers:

Newsletters

Career Education News
Bobit Publishing Company
1155 Waukegan Road
Glenview, IL 60025

Career Education in the States
Task Force on Career Education
of the Education Commission
on the States
1860 Lincoln Street, Suite 300
Denver, CO 80295

Career Education Workshop
Parker Publishing Company
Route 59A at Brookhill Drive
West Nyack, NY 10994

CES News
875 North Michigan Avenue
Suite 1850
Chicago, IL 60611

ERIC Clipboard
ERIC Clearinghouse on Adult,
Career and Vocational Education
Ohio State University
1960 Kenny Road
Columbus, OH 43210

Inform
National Career Information Center
American Personnel and Guidance Association
2 Skyline Place, Suite 400
5203 Leesburg Pike
Falls Church, VA 22041

News from NACE
National Association for Career Education
c/o Office of Career Education
Glassboro State College
Glassboro, NJ 08028

Other Periodicals

Career Education Quarterly
National Associaton of Career Education
c/o Boston University
School of Education
765 Commonwealth Avenue, Room 1502
Boston, MA 02215

Journal of Career Education
University of Missouri
College of Education, Room 111
Education Building
Columbia, MO 65211

Facilities for career education

For the most part career education does not require special facilities other than those used in all other disciplines. This has been continually emphasized by repeated statements that career education should be an integral part of all disciplines and that generally the career education content is infused into the existing curricula of all subject areas.

One exception to be considered is the use of community resources for exploratory and vocational training internships. The significant facility considerations for career education curriculum development are identification of community sites, the procurement of necessary transportation, parental involvement, insurance and safety measures.

Computerized career education information

The use of computer services assists in the development of a sound career education program. Career information obtained and incorporated with resource and industry materials provide the student with up-to-date data covering careers, colleges, apprenticeship training and employment potential. Decisions for the future can be based on selected projections. Two systems used in Connecticut are:

Consider/Guidance Information System (Consider/GIS), Educational Service Centers Computer Network (ESCCNET). Contact Kathryn Smith at ACES, 562-9967.

MOIS New England Career Information System. Individuals in EASTCONN area, contact Paula Cohen, Director of Instructional Services at 456-3254. Outside the EASTCONN area, contact Robert Goldberg, District Manager, 1355 Liberty Street, Springfield, MA 01104 at 413-788-6163.

7 In Summary

Many of our critical economic and social problems revolve around people and work. There is an increasing awareness among educators of their responsibility to prepare students to work in a rapidly changing, highly complex technological society. Career education is one of the educational responses to this challenge.

Career education is designed to prepare all students for "work"—not necessarily to prepare them for a specific "job" but essentially to prepare them for work that is meaningful, productive and self-fulfilling. With leadership provided by the State Board of Education and the State Legislature, local boards of education are better able to prepare students for work through career and vocational education.

A Guide to Curriculum Development in Career Education has attempted to assist local school districts advance their preliminary planning efforts into a sound pedagogical curriculum that will meet the career education needs of their students. Three fundamental principles that are specific and unique in developing career education have been consistently stressed throughout this guide.

- Career education is a concept rather than a separately scheduled instructional program. Knowledge, skills and attitudes that comprise career education must be infused or integrated into every subject discipline at every grade level.
- Career education is not an "add-on" subject that detracts from the learning of basic education skills. In fact, it enhances them because it points out the relevance of these basic skills.
- The teaching/learning process of career education frequently extends beyond the four walls of a classroom and its teacher. Career education, when effectively developed, involves parents and the community as instructional resources.

Appendix A
Statewide Goals for Education

From Connecticut's *Comprehensive Plan for Elementary and Secondary Education*, 1980–1985

GOAL ONE

Motivation to Learn

To realize their potential to learn, students must be highly motivated.

Therefore:

Connecticut public school students will develop strong motivation by responding to the high expectations of their parents, teachers and school administrators; by understanding and striving to fulfill personal aspirations; and by developing the positive feelings of self worth which contribute to responsible behavior and personal growth, health and safety.

GOAL TWO

Mastery of the Basic Skills

Proficiency in the basic skills is essential for acquiring knowledge and for success in our society.

Therefore:

Connecticut public school students will, to their full potential, learn to communicate effectively in speech and writing; read with understanding; acquire knowledge of and ability in mathematics; and strengthen decision-making skills.

Appendix A (continued)

GOAL THREE

Acquisition of Knowledge

Acquiring knowledge leads to fuller realization of individual potential and contributes to responsible citizenship.

Therefore:

Connecticut public school students will acquire the knowledge of science, mathematics, social studies, the arts, literature and languages which leads to an understanding and appreciation of the values and the intellectual and artistic achievements of their culture and other cultures; and will take full advantage of opportunities to explore, develop and express their own uniqueness and creativity.

GOAL FOUR

Competence in Life Skills

Students are challenged to function successfully in multiple roles: as citizens, family members, parents, producers and consumers.

Therefore:

Connecticut public school students who complete secondary level studies will have the ability to make informed career choices; understand the responsibilities of family membership and parenthood; be prepared to undertake the responsibilities of citizenship in their communities, in the state, in the nation and in the world; and have the skills, knowledge and competence required for success in meaningful employment, or be qualified to enter postsecondary education.

GOAL FIVE

Understanding Society's Values

To be responsible citizens and contribute to positive change, students must understand and respect the underlying values of this society.

Therefore:

Connecticut public school students will appreciate diversity and understand the inherent strengths in a pluralistic society; they will understand and respond to the vital need for order under law; they will acquire the knowledge necessary to live in harmony with the environment, and actively practice conservation of natural resources, and they will respect the humanity they share with other people.

Appendix B
Legislation

The series of guides to curriculum development published in 1981 by the State of Connecticut Board of Education is consistent with the provisions of Sections 10-4 and 10-16b (or P.A. 79-128) of the Connecticut General Statutes.

Section 10-4. Duties of Board. (a) . . . shall prepare such courses of study and publish such curriculum guides . . . as it determines are necessary to assist school districts to carry out the duties prescribed by law . . . .

Section 10-16b. Prescribed courses of study. (a) In the public schools the program of instruction offered shall include at least the following subject matter, as taught by legally qualified teachers: the arts; career education; consumer education; health and safety; language arts, including reading, writing, grammar, speaking and spelling; mathematics; physical education; science; social studies, including, but not limited to, citizenship, economics, geography, government and history; and in addition, on at least the secondary level, one or more foreign languages and vocational education.

(b) Each local and regional board of education shall on September 1, 1982, and annually thereafter at such time and in such manner as the commissioner of education shall request, attest to the state board of education that such local or regional board of education offers at least the program of instruction required pursuant to this section, and that such program of instruction is planned, ongoing and systematic.

(c) The state board of education shall make available curriculum materials and such other materials as may assist local and regional boards of education in developing instructional programs pursuant to this section.

Appendix C
Regional Educational Service Centers

Area Cooperative Education Services (ACES)
800 Dixwell Avenue
New Haven, CT 06511

Capitol Region Education Council (CREC)
212 King Philip Drive
West Hartford, CT 06117

Cooperative Educational Services (CES)
11 Allen Road
Norwalk, CT 06852

Eastern Connecticut Regional Educational Service Center (EASTCONN)
R.R. 2
Willimantic, CT 06226

Long-Range Educational Assistance for Regional Needs (LEARN)
P.O. Box 220
East Lyme, CT 06333

Regional Educational Services Concept through United Effort (RESCUE)
R.R. 2, Goshen Road
Litchfield, CT 06759

Appendix D
Career Education Evaluation Resources

This bibliography is taken, in part, from *Bibliography on Career Education*, published by the Department of Health, Education and Welfare, Office of Education, Washington, DC.

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Glossary

Ability	Actual power to perform acts, physical or mental, whether or not the power is attained by training and/or education. Ability implies that the task can be performed now.
Adaptability	The quality of being able to adjust one's self to changing expectations within an occupation
Adjustment	The process of personal modification which one must accept as part of the changing world
Aptitude	The tendency, capability, or potential to learn or understand
Attitude	Mental and/or emotional position influencing one to accept or reject particular groups of individuals, sets of ideas, situations or values reflected in behavior
Avocation	An activity pursued in addition to one's work mainly for enjoyment (hobby). Any individual whose career provides him with a means of livelihood and some leisure time can find satisfaction through his avocation in areas of life other than his career.
Career	The sequence of occupations and/or jobs engaged in or occupying a person throughout his/her lifetime
Career Development	A continuous, developmental process, a sequence of choices which form a pattern throughout one's lifetime and which represent one's self-concept
Career Development Process	Defined in "Career Development"
Career Planning and Preparation	The process whereby a person examines her/his interests and abilities in relation to possible careers and based on his/her decisions, she/he prepares by fulfilling certain education and training requirements.
Chain of Command	Order of authority with respect to job positions.
Community	Body of individuals organized into a unit linked by common interests

Glossary (continued)

Concept	Major idea, thought or notion identified as essential to the career development process
Condition	Circumstance which exists as a result of modifying factors, e.g., the employment rate and its relationship to government spending
Decision Making	Determination arrived at after consideration
Decision-Making Process	Act of deciding upon an occupational course of action in a systematic way
Dignity and Worth	Degree of esteem (intrinsic worth) and relative values of a person related to moral, intellectual and personal values
D.O.T.	*Dictionary of Occupational Titles.* Comprehensive occupational information resource published by the U.S. Government.
Economic Structure	The arrangement of the economic components making up the free enterprise system
Educational Preparation	An educational process whereby a person meets certain competency requirements in order to enter, remain and advance in a certain occupation
Employment Trends	General direction, development and movement of jobs which includes: (a) whether workers are currently in demand; (b) whether employment is expected to increase or decrease, and (c) what the main factors are which can influence the growth and decline of the occupation.
Employability	Ability to secure and maintain employment through proper training and the exercising of good work habits
Entry Level	Lowest position in any occupation as defined locally by collective bargaining agreement, past practice or applicable personnel rules
Environment	The surrounding conditions, influences or forces that influence or modify the career development process
Evaluation Procedures	Those procedures designed to test the effectiveness of learning activities and objectives
Extrinsic	From without, external. Used in reference to the easily identifiable and extraneous features of occupations.
Financial Aids	Monetary assistance which enables one to meet necessary occupational training and/or educational requirements
Frame of Reference	Viewpoint or context within which a person looks at facts or ideas

General Education	Often referred to as a liberal education. It is training of a broad academic nature which does not have a particular occupational objective.
Horizontal Mobility	Movement of an individual from one position to another within the same strata (e.g., mason-painter)
Individual Potential	The capacity of the individual for changing and/or growing in capability and self-fulfillment
Industry	A group of productive, profit-making enterprises that have a similar technological structure for production and that produce or supply technically similar goods and services
Institutions	The sum of the patterns, relations process, and material instruments built up around major human activities. They regulate and standardize behavior. Examples of institutions are school and church, built around education and religion, respectively.
Interdependency	Mutual dependence on one another
Interest	Preference, discovered through the study of self and occupations within the work world, for an occupational field. One's interest changes as he/she is exposed to new experiences that lead her/him to new interest areas.
Interplay	Mutual action or influence that takes place in a reciprocal relationship
Intrinsic	Internal or inner, as in the "intrinsic" values of an occupation which are significant to an individual
Job	Employment, involving specific duties, undertaken for remuneration
Job Cluster	Jobs which are related through similarity in work performed; tools, equipment and materials used; knowledge needed; and mental and physical characteristics required of workers.
Job Description	Descriptive statement giving properties of a particular job.
Job Family	Employment related through common enterprise (for example: food services)
Job Level	Position of a specific job in the structure of an organization based on its importance and preparation and experience required
Job Requirements	Specific knowledge, skills, and training needed to satisfy a particular area of work
Learning Activities	Actions or projects through which specific learning takes place
Learning Outcomes	Knowledge and skills attained

Glossary (continued)

Leisure Time	Free time after the practical necessities of life have been attended to; an increasing commodity in our society due to technology
Life Style	An individual's way of life determined by attitudes and values expressed in self-consistent manner
Objectives	The teaching vehicle used to develop an understanding of an expressed career development concept
Occupation	Work activity in various job settings in which people engage in a group of similar tasks organized in similar ways. It occupies the worker for a period of time but does not require single-minded commitment. It requires differentiated training but may involve considerable retraining.
Occupational Cluster	Occupations which are related and grouped according to type of work, skill of worker, and place where work is carried on
Occupational Expectations	Rewards and satisfactions which a person anticipates from an occupational choice which must be considered in relation to self
Occupational Fields	Areas of related vocations in society
Occupational Information	Valid and usable data about occupations, including duties, requirements for entrance, conditions of work, rewards offered, advancement pattern, existing and predicted supply of and demand for workers, and sources for further information
Occupational Level	See job level.
Personal Attributes	Intrinsic qualities of an individual which he/she must consider in relation to her/his choice of job and/or occupation
Personal Needs	Relating to a particular person in a private manner—must be met through his/her occupational choice
Phase	A stage or interval in a development or cycle
Professional Occupations	Occupations characterized by social power, status and a high degree of technical skills entailing specialized preparation
Psychological Demands	Needs related to mind and emotions
Relevance	Pertinence or appropriateness of occupational elements to the individual
Self	The entire make-up of the individual, emphasizing the relationship between the individual's changing perceptions of himself/herself and meaningful career choice

Self Appraisal	Evaluation of oneself with respect to one's attitudes, values, etc., so that a realistic decision and choice can be made.
Sequential	Continuous and consecutive phases of the career development process
Service Occupation	Useful work which meets the needs of the public but does not produce a tangible commodity
Significant Adults	People who through effective interpersonal relationships influence the career choice of others
Skills	The ability of an individual to use knowledge effectively in the execution of work performance. A developed aptitude.
Social Needs	Needs of society which are met through people working in occupations necessary for the sustenance of that society
Specialization	Quality or state of being highly developed for use or employment in a particular line of work
Stage	Period or step in a process, activity or development
Technical Occupations	Occupations requiring specific mechanical and scientific knowledge
Technology	Application of scientific principles to industry
Topic	Specific teaching content which enables the implementation of stated objectives
Value	Standard of judgment accepted by persons, groups, or institutions, stemming from and conditioned by their societal contracts
Vertical Mobility	Movement between jobs considered to have different status
Vocation	Implies a dedication or long-term commitment to a type of work with its accompanying requirements, rewards and expectations
Vocational Guidance	An "individualized" aspect of the educational program that provides individual counseling to each student to help him/her make right career choices and to reach her/his full potential in the area of career development
Work	Fulfillment of job duties, expectations for which one has been employed in order to provide a "purposeful" means of livelihood
Work World	The breadth of career opportunities and occupations available to an individual preparing to make a career decision

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